CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 96-052

ADOPTION OF SITE CLEANUP REQUIREMENTS AND RESCISSION OF ORDER NO. 93-139 FOR:

GRUBB AND ELLIS REALTY INCOME TRUST, LIQUIDATING TRUST; STARK INVESTMENT COMPANY; CATELLUS DEVELOPMENT CORPORATION; STEVEN SONG, MICHAEL NEELY AND PERRY NEELY dba MIKE' S ONE HOUR CLEANERS; MILLERS OUTPOST SHOPPING CENTER ASSOCIATES, IMA FINANCIAL CORPORATION; KATHLEEN McCORDUCK, JOHN McCORDUCK, PAMELA McCORDUCK AND SANDRA McCORDUCK MARONA; FORTNEY H. STARK, JR.; CHARLES HARTZ dba PAUL' S SPARKLE CLEANERS

for the properties

LIVERMORE ARCADE SHOPPING CENTER
located at FIRST AVENUE AND "P" STREET, AND
MILLERS OUTPOST SHOPPING CENTER
located at RAILROAD AVENUE AND "P" STREET
LIVERMORE, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. **Site Location**: The Livermore Arcade Shopping Center (LASC), also known as Vintners Square Shopping Center, is located at the northwest corner of First Avenue and P street, Livermore, Alameda County, California. The Millers Outpost Shopping Center (MOSC) is located, adjacent to LASC, at the northwest corner of Railroad Avenue and P street, Livermore, Alameda County. The LASC and MOSC properties cover an approximate area of 17 acres. For the purposes of this Order, both the LASC and MOSC properties shall be hereinafter collectively referred to as the "site". The site is within the downtown Livermore area and is currently used for commercial purposes. The current land use north-northwest of the site is residential. The site location is shown in Figure 1.

2. **Site History**: The LASC is currently owned by Grubb and Ellis Realty Income Trust, Liquidating Trust (GERIT). Mike's One Hour Cleaners (Mike's Cleaners) is a dry cleaning facility at the LASC. Paul's Sparkle Cleaners (Paul's Cleaners), located approximately 450 feet northwest of and downgradient to Mike's Cleaners, is a dry

cleaning facility at MOSC. Tetrachloroethylene (PCE) was routinely used in the dry cleaning operations at both Mike's Cleaners and Paul's Cleaners. During the operations, there were instances of PCE spills and disposal of PCE wastes to the sanitary sewer drains that lead to soil and groundwater pollution at the site.

3. **Named Dischargers**: GERIT is a secondary discharger because it currently owns LASC. Stark Investment Company and Catellus Development Corporation are secondary dischargers because they are past owners of LASC. Steven Song, Michael Neely and Perry Neely are primary dischargers because they operated at Mike's Cleaners. MOSC associates is a limited partnership of which IMA Financial Corporation is the managing general partner. MOSC Associates is a secondary discharger because it currently owns MOSC. Kathleen McCorduck, John McCorduck, Pamela McCorduck, Sandra McCorduck Marona, Stark Investment Company, and Fortney H. Stark are secondary dischargers because they are past owners of the MOSC. Charles Hartz operated at Paul's Cleaners and is a primary discharger.

   The secondary dischargers will be responsible for compliance if the Board or Executive Officer finds the primary dischargers have failed to comply with the requirements of this Order. If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the State, the Board will consider adding that party's name to this Order.

4. **Regulatory Status**: This site is subject to the following Board order:

   Site Cleanup Requirements, Order No. 93-139, adopted October 20, 1993.

5. **Site Hydrogeology**: The site consists of several buildings that occupy the majority of the total surface area . The remaining area is currently covered by asphalt and/or concrete. The sediments encountered during drilling are the upper part of the Pleistocene Livermore Formation that consists of yellowish-brown clay, silt, sand, and gravel deposited in alluvial fans and marsh/deltaic environments. The groundwater beneath the site occurs within two distinct zones. An upper or shallow local unconfined water bearing zone occurs above a continuous silty-clay aquitard beneath which is the deeper aquifer. The shallow groundwater is about 30 feet below ground surface and has exhibited a thickness of less than 10 feet during drought periods. There are no reported uses of the shallow groundwater underlying the site. The shallow groundwater flows primarily toward the northwest direction with a hydraulic gradient of about 0.0097 ft/ft. The continuous silty-clay aquitard is about 70 feet below ground surface and 40 feet thick.

6. **Remedial Investigation**: Soil and groundwater investigations, conducted in 1990, revealed the presence of PCE, its degradation products, and petroleum hydrocarbons at LASC. Subsequent investigations clearly indicated that the petroleum hydrocarbons

originated from an off-site source located southeast of LASC. Based on a "Remedial Investigation" report, dated April 1992, and previous investigations, the maximum PCE groundwater concentration was 5800 ppb and the PCE groundwater plume extended to about 950 feet along the downgradient direction. Additional investigations revealed that Paul's Cleaners at MOSC has contributed to the PCE groundwater plume. The lateral and vertical extent of PCE and its degradation products in soil and groundwater beneath the site has been delineated by a soil-gas survey, numerous soil borings, and thirty two monitoring wells including two wells screened in the deeper aquifer.

Analysis of soil samples in 1995 indicated less than 1 ppm of PCE and its degradation products in soil at the site. The groundwater PCE concentrations at Mike's and Paul's cleaners have been reduced to approximately 100 ppb. Groundwater concentrations of TCE, cis-1,2 DCE and trans-1,2 DCE, which are degradation products of PCE, are 100 to 1000 times lower than that of PCE. The PCE groundwater pollution has migrated off-site as shown in Figure 2. The downgradient monitoring wells MW-14 and MW-15, at the periphery of the PCE plume, have consistently shown approximately 10 ppb of PCE since 1990. The data generally indicate that PCE concentrations decrease with depth in the shallow groundwater. PCE groundwater concentrations less than 5 ppb have been detected intermittently in monitoring well DMW-01 (Figure 2) which is screened in the deeper aquifer. The PCE detected in this monitoring well is likely a result of cross-contamination during its installation. However, PCE levels in the monitoring well have been less than 0.5 ppb during the past three monitoring events. No PCE has been detected in DMW-02 and the California Water Service Company Wells No. 03 and 08.

7. **Adjacent Sites**: The petroleum hydrocarbons at the site are restricted to the shallow groundwater beneath the south-eastern portion of LASC and originated from the adjacent Beacon gas station, located at 1619 First Avenue, Livermore, Alameda County . The investigation, cleanup and containment of the petroleum hydrocarbon pollution is under the regulatory oversight of the Alameda County Department of Environmental Health and is beyond the scope of this Order.

8. **Interim Remedial Measures**: A pilot scale soil vapor extraction (SVE) system was initiated at LASC in June 1992. The PCE removal rate of the SVE system was approximately 0.42 lbs/day. The pilot scale SVE system was subsequently expanded to include air sparging. The results of the pilot study indicated that SVE with appropriate air sparging is very effective in removing PCE from the subsurface soils and reducing the PCE groundwater concentrations. The pilot system was operated intermittently until the end 1993.

9. **Feasibility Study**: A "Feasibility Study/ Remedial Action Plan", dated July 1992, evaluated eight remedial alternatives such as no action, variations of groundwater extraction and treatment, variations of SVE/air sparging systems, and subsurface

bioremediation. The evaluation factors used were short-term and long-term effectiveness, implementability, protection of public health and the environment, costs, and community acceptability. The recommended alternative was SVE with air sparging during periods of high groundwater levels.

10. **Cleanup Plan**

a. Original Cleanup Plan: A remedial plan was proposed in the report "Remedial Plan/Preliminary Remedial Design", dated March 1993. This plan was an extension of the pilot scale interim remedial measure and consisted of SVE with carbon treatment and, as appropriate, air sparging to remediate the soil and groundwater pollution at the entire site. The full-scale SVE/air sparging system was installed in February-March 1994. The system was initially operated as a vapor extraction unit only due to low groundwater levels. In July 1994 the system was modified to conduct both vapor extraction and air sparging. Since then the system was continually enhanced by increasing the air pressures and flow rates, and by periodically changing locations of air injection and extraction. Additionally, groundwater extraction and treatment was performed since the first quarter of 1995. The progress of the remediation is documented in quarterly reports submitted to the Board. The SVE/air sparging system ceased operation in October-December 1995 when the inlet PCE vapor concentrations to the system were 1 ppm(v) or lower and PCE groundwater concentrations reached asymptotic levels. Groundwater extraction and treatment ceased in February 1996 after demonstration that the system no longer had any measurable impact on reducing PCE concentrations in groundwater.

b. Proposed Containment/Cleanup Plan: The dischargers have proposed a non-attainment area strategy to contain and manage the residual pollution at the site. The strategy is detailed in a draft report "Request for Designation of a Containment Zone", dated February 14, 1996, and consists of a containment zone risk management plan including a contingency plan to be implemented if trigger levels are exceeded. The remedial system has been successful in reducing the PCE and its degradation products in soil to less than 1 ppm. However, the groundwater cleanup goal of 5 ppb has not been met. As described above, the SVE/air sparging system was continually enhanced and subsequently operated in conjunction with groundwater extraction and treatment until the groundwater concentrations reached asymptotic levels. Thus, the dischargers have demonstrated that achieving the 5 ppb cleanup goal is technically infeasible. The PCE groundwater concentrations have been reduced from over 1000 ppb to near 100 ppb. The proposed non-attainment area is shown in Figure 3 and applies only to the shallow groundwater.

The containment zone risk management plan contains certain pollution management measures that prohibit the use of shallow groundwater, prohibit

the creation of potential vertical conduits between the shallow and deeper groundwaters, and require the preparation of appropriate health and safety plans for any activities involving exposure to groundwater, within the proposed non-attainment area. Water well drilling and building construction activities in the proposed non-attainment area are permitted by the Alameda Flood Control and Water Conservation District (Zone 7) and the City of Livermore, building permit section, respectively. The dischargers plan on obtaining letters from Zone 7 and the City of Livermore that indicate that the above pollution management measures have been incorporated into the water well drilling and building construction permitting processes. The proposed building restrictions are applicable only to construction/excavation activities that occur at or below the groundwater table which is approximately 30 feet below ground surface. Exceptions to the titles of the LASC and MOSC properties will be recorded with the Alameda County Recorder's Office that indicate the existence of a containment zone risk management plan.

11. **Risk Assessment**

a. Original Risk Assessment: A baseline health risk assessment report, dated April 1992, evaluated the human health risks associated with PCE in soil and groundwater at the site before starting remediation. The risk assessment concluded that the cancer risks were below the excess lifetime cancer risk of 1E-06 for soil ingestion, dermal absorption, and soil gas inhalation exposure routes. However, the incremental cancer risk due to groundwater ingestion was as high as 5E-03.

b. Non-attainment area related Risk Assessment : The dischargers conducted a post-cleanup risk assessment which is documented in the report "Health Risk Assessment", dated January 1996. The main constituents considered for the risk assessment were PCE and its degradation products TCE, cis-1,2 DCE, and trans-1,2 DCE. The current land use and the likely future use at the site are commercial. The risk assessment considered current and future exposure scenarios for the on-site commercial land use and off-site residential land use. The exposure route-pathways evaluated were inhalation of pollutants volatilizing from groundwater, inhalation and dermal absorption of pollutants from using groundwater for bath-shower purposes, dermal absorption of pollutants from using groundwater for irrigation purposes, and ingestion of groundwater. The risk assessment determined that PCE contributes to more than 90 % of the cancer risk and 70% of the non-cancer risk. The excess cancer risk and non-cancer risk from inhalation of pollutants volatilizing from groundwater are less than 1E-06 and 0.01 respectively, for current and future, residential and commercial scenarios. The total excess cancer and total non-cancer risk, from ingestion of groundwater and inhalation/dermal absorption of pollutants from using groundwater for bath-shower and irrigation purposes, are

2.6E-05 and 0.344 respectively.

For comparison, the Board considers the following risks to be acceptable at remediation sites: a hazard index of 1.0 or less for non-carcinogens, and an excess cancer risk of 10^{-4} or less for carcinogens.

12. **Basis for Cleanup Standards**

a. **General**: State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives.

State Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

b. **Beneficial Uses**: The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels. The shallow groundwater underlying the site is of limited yield with a widely fluctuating water level. During drought periods, shallow groundwater monitoring wells yielded much less than 200 gallons per day. The deeper groundwater underlying and adjacent to the site qualifies as a potential source of drinking water.

The Basin Plan designates the following potential beneficial uses of groundwater underlying and adjacent to the site:

o Municipal and domestic water supply
o Industrial process water supply
o Industrial service water supply
o Agricultural water supply

At present there is no known use of the shallow groundwater underlying the site for the above purposes. However, the deeper groundwater is known to be used for municipal and domestic purposes.

The existing and potential beneficial uses of surface waters in the Livermore - Amador Valley include:

o Groundwater recharge
o Water contact and non-contact recreation
o Wildlife habitat
o Fish migration and spawning
o Warm and cold freshwater habitat

c. **Basis for Groundwater Cleanup Standards**: The groundwater cleanup standards for the site are based on applicable water quality objectives and are the more stringent of EPA and California primary maximum contaminant levels (MCLs). Cleanup to this level will result in acceptable residual risk to humans.

d. **Basis for Soil Cleanup Standards**: The soil cleanup standards for the site are 1 mg/kg total VOCs and 10 mg/kg total SVOCs. Cleanup to this level is intended to prevent leaching of contaminants to groundwater and will result in acceptable residual risk to humans.

13. **Basis for Non-Attainment Area**

a. **Limits of Groundwater Remediation Technology**: The Board has over ten years of experience overseeing the cleanup of VOC-polluted groundwater at numerous Bay Area sites. The Board is also aware of experience elsewhere in the U.S. with such sites. This experience demonstrates that groundwater remediation technologies are effective for pollutant removal and migration control. However, the technologies are usually not effective in restoring beneficial uses of VOC-polluted groundwater, due to very stringent water quality objectives for many VOCs and due to prohibitively high costs and long time-frames to reach objectives. Groundwater pollutant concentrations typically reach an asymptotic level that is significantly above the applicable water quality objective. These findings were also part of the Board's consideration of Basin Plan groundwater amendments in late 1992. Although similar in concept to the Basin Plan amendments, this Order stands alone and does not depend upon the Basin Plan in the implementation of a non-attainment area.

b. **Non-Attainment Area**: The Board may designate a non-attainment area for areas of groundwater where water quality objectives cannot reasonably be achieved, after considering what is technologically and economically feasible within a reasonable time period. Water quality objectives must continue to be met at the boundary outside of the designated non-attainment area.

c. **Criteria**: In order to designate a non-attainment area, the Board considered the following:

i. The dischargers have completed adequate source control (removed tanks, sumps, floating product, and other sources; removed or isolated polluted soils), and

ii. The dischargers have fully implemented an approved groundwater cleanup program and groundwater concentrations have reached asymptotic levels, and

iii. No alternative that meets groundwater objectives is technically or economically feasible, and

iv. The dischargers have evaluated the risks to water quality, human health, and the environment associated with the non-attainment area, and

v. The dischargers have proposed a risk management plan to avoid excessive risk to water quality, human health, and the environment (including reasonable mitigation for any significant adverse impacts), and

vi. The dischargers will conduct monitoring adequate to document that water quality objectives are met outside the non-attainment area and that risks within the non-attainment area remain acceptable.

d. **Specific Rationale**: Water quality objectives cannot reasonably be achieved in the area designated on Figure 3 and the area meets the above criteria for designating non-attainment areas. Specifically,

i. Soil concentrations of PCE and its degradation products at the two source areas adjacent to Mike's Cleaners and Paul's Cleaners have been reduced to less than 1 ppm. Further, PCE groundwater concentrations in the source areas have been reduced from over 1000 ppb to near 100 ppb. Thus, adequate source removal has been accomplished.

ii. As described in Finding 10.a. above, an appropriate soil and groundwater remedial system consisting of SVE/air sparging and

groundwater extraction and treatment was implemented at the site. PCE groundwater concentrations have reached asymptotic levels. Further reduction in PCE groundwater concentrations is not technically feasible due to the high clay content and anisotropic nature of the shallow water bearing zone.

iii. Groundwater monitoring data indicate that PCE groundwater concentrations have stabilized due to pollution source removal and remediation. Groundwater modeling, for a 30 year period, using site specific groundwater flow characteristics, attenuation, and biological transformation predicts that significant migration of the PCE plume will not occur. Further, the silty-clay aquitard separating the shallow and deeper groundwaters is considered to be continuous throughout the non-attainment area, and the potential for vertical migration of PCE through the aquitard is negligible.

iv. As described in Finding 11.b. a human health risk assessment indicated that risks to human health due to the current and future pollutant concentrations within the non-attainment area are acceptable. As described in Finding 10.b. a containment zone risk management plan, as amended by this Order, shall be implemented to contain and manage the remaining risks within the non-attainment area.

14. **Reuse or Disposal of Extracted Groundwater**: Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

15. **Basis for 13304 Order**: The dischargers have caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

16. **Cost Recovery**: Pursuant to California Water Code Section 13304, the dischargers are hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.

17. **CEQA**: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

18. **Notification**: The Board has notified the dischargers, off-site property owners within

the proposed non-attainment area, and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments. The dischargers have published a notice in the *Valley Times*, Legal Notices Section, Page 4D, dated March 27, 1996, regarding the proposed pollution management measures within the non-attainment area.

19. **Public Hearing**: The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers (or their agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. CLEANUP PLAN AND CLEANUP STANDARDS

1. **Implement Containment/Cleanup Plan**: The dischargers shall implement the containment/cleanup plan described in Finding 10.b., with the following amendments, in a manner that is acceptable to the Regional Board Executive Officer (the "Executive Officer"). The proposed containment zone risk management plan including the contingency plan is amended as follows:

   i. Pollution management measures that prohibit the use of shallow groundwater, prohibit the creation of potential vertical conduits between the shallow and the deeper groundwaters, and require the preparation of appropriate health and safety plans for any activities involving exposure to groundwater, shall be implemented within the proposed non-attainment area.

   ii. The trigger levels for monitoring wells MW-6, MW-13, MW-15, MW-26S, MW-26D, MW-28D, MW-31S, and MW-31D are 122 ppb, 42 ppb,

20 ppb, 873 ppb, 133 ppb, 30 ppb, 424 ppb, and 15 ppb respectively. The trigger levels are established as the mean plus two standard deviations of the PCE groundwater concentrations in the monitoring wells during the period 1990-1995.

iii. If the total concentration of PCE and its degradation products, as analyzed by US EPA method 8010 or its equivalent, in a monitoring well exceeds the appropriate trigger level or if the trend of the total concentration of PCE and its degradation products in a monitoring well exhibits a rate of increase which indicates that the appropriate trigger level will be exceeded before the next regular sampling event, the monitoring frequency for that well shall be increased to quarterly.

iv. If a trigger level is exceeded, the Executive Officer shall be notified within 30 days following the first observation of the exceedance.

v. If the total concentration of PCE and its degradation products is below the appropriate trigger level for two consecutive quarters, groundwater monitoring will return to the regular schedule.

vi. If the total concentration of PCE and its degradation products exceeds the appropriate trigger level for two consecutive quarters, groundwater extraction at appropriate locations shall commence, in a manner acceptable to the Executive Officer, within a period of 30 days following the second quarterly monitoring event.

vii. A technical report acceptable to the Executive Officer shall be submitted documenting the completion of any actions taken under the contingency plan within a period of 45 days following the return of groundwater monitoring to the regular schedule or after implementation of groundwater extraction.

2. **Groundwater Cleanup Standards**: Groundwater in monitoring well(s) to be installed at the boundary outside of the proposed non-attainment area, as required by task 2 of this Order, in monitoring well MW-14, and in the deep wells DMW-01, DMW-02, CWS-03 and CWS-08 shall not contain concentrations of pollutants in excess of the following limits.

Constituent	Cleanup Standard (ug/l)	Basis
PCE	5	MCL

TCE	5	MCL
cis-1,2 DCE	6	MCL
trans-1,2 DCE	10	MCL
vinyl chloride	0.5	MCL

3. **Contingency Plan if Cleanup Standards are exceeded**: The dischargers shall develop a contingency plan, as required by task 3 of this Order, to be implemented if the above cleanup standards are exceeded.

C. **NON-ATTAINMENT AREA**

1. **Establishment of Area**: A non-attainment area is established as shown in Figure 3 and applies only to the shallow groundwater above the silty-clay aquitard, which is about 70 feet below ground surface. Groundwater cleanup standards do not apply in this area. The dischargers are required to implement the containment/cleanup plan described in Finding 10.b., as amended by this Order, in a manner that is acceptable to the Executive Officer.

2. **Conditions**: Establishment of the non-attainment area is subject to the procurement of letters from zone 7 and the City of Livermore as described in Finding 10.b. If the dischargers are unable to obtain these letters, they may propose alternate institutional constraints, acceptable to the Executive Officer, to implement the pollution management measures described in Finding 10.b.

D. **TASKS**

1. **IMPLEMENTATION OF INSTITUTIONAL CONSTRAINTS**

COMPLIANCE DATE: (July 1, 1996)

Submit a technical report acceptable to the Executive Officer documenting that letters from Zone 7 and the City of Livermore have been obtained which indicate that the pollution management measures, described in Finding 10.b., have been incorporated into the well drilling and building construction permitting processes OR Submit a technical report acceptable to the Executive Officer documenting procedures to be used to implement the pollution management measures described in Finding 10.b. with a time schedule for the implementation of the procedures. The technical report shall document that Exceptions to the titles of the LASC and MOSC properties, that indicate the existence of a containment zone risk management plan, have been recorded

with the Alameda County Recorder's Office.

2. **MONITORING PLAN OUTSIDE THE NON-ATTAINMENT AREA**

COMPLIANCE DATE: (August 1, 1996)

Submit a workplan acceptable to the Executive Officer to implement groundwater monitoring at the boundary outside of the non-attainment area. The plan should include the number, location, and depths of screening intervals of monitoring wells to be installed and a time schedule for installation.

3. **CONTINGENCY PLAN IF CLEANUP STANDARDS ARE EXCEEDED**

COMPLIANCE DATE: (June 3, 1996)

Submit a technical report acceptable to the Executive Officer which describes a contingency plan to be implemented if cleanup standards are exceeded in monitoring well(s) to be installed as per task 2 above, in monitoring well MW-14, and in the deep wells DMW-01, DMW-02, CWS-03 and CWS-08. The report should include all steps to be taken with a time schedule for their implementation.

4. **FIVE-YEAR STATUS REPORT**

COMPLIANCE DATE: *(May 1, 2001)*

Submit a technical report acceptable to the Executive Officer evaluating the effectiveness of the approved containment/cleanup plan, including the designated non-attainment area. The report should include:

a. Summary of effectiveness in controlling contaminant migration and protecting human health and the environment
b. Comparison of contaminant concentration trends with cleanup standards
c. Evaluation of risk management plan associated with non-attainment area
d. Recommendations on continuation of groundwater monitoring and the pollution management measures.

5. **EVALUATION OF NEW HEALTH CRITERIA**

COMPLIANCE DATE: 90 days after requested by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating the effect on the approved containment/cleanup plan of revising one or more cleanup standards in response to adoption of revised drinking water standards, maximum contaminant levels, or other health-based criteria.

6. **EVALUATION OF NEW TECHNICAL INFORMATION**

COMPLIANCE DATE: 90 days after requested by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating new technical information which bears on the approved containment/cleanup plan and cleanup standards for this site. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such technical reports shall not be requested unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved containment/cleanup plan, cleanup standards, or risk reduction.

7. **Delayed Compliance**: If the dischargers are delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the dischargers shall promptly notify the Executive Officer and the Board may consider revision to this Order.

E. **PROVISIONS**

1. **No Nuisance**: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).

2. **Good O&M**: The dischargers shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

3. **Cost Recovery**: The dischargers shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee containment/cleanup of such waste, abatement of the effects thereof, or other actions, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the dischargers over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution

procedures for that program.

4. **Access to Site and Records**: In accordance with California Water Code Section 13267(c), the dischargers shall permit the Board or its authorized representative:

   a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

   b. Access to copy any records required to be kept under the requirements of this Order.

   c. Inspection of any monitoring or remediation facilities installed in response to this Order.

   d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the dischargers.

5. **Self-Monitoring Program**: The dischargers shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

6. **Contractor / Consultant Qualifications**: All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.

7. **Lab Qualifications**: All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).

8. **Document Distribution**: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

   a. City of Livermore, Building Permits Section
   b. County of Alameda, Zone 7

   The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator**: The dischargers shall file a technical report on any changes in site occupancy or ownership associated with the LASC and MOSC properties.

10. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the dischargers shall report such discharge to the Regional Board by calling (510) 286-1255 during regular office hours (Monday through Friday, 8:00 to 5:00).

    A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

    This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

11. **Rescission of Existing Order**: This Order supercedes and rescinds Order No. 93-139. In the event that this Order is not adopted by the Board, Order No. 93-139 shall continue to be effective.

12. **Periodic SCR Review**: The Board will review this Order periodically and may revise it when necessary.

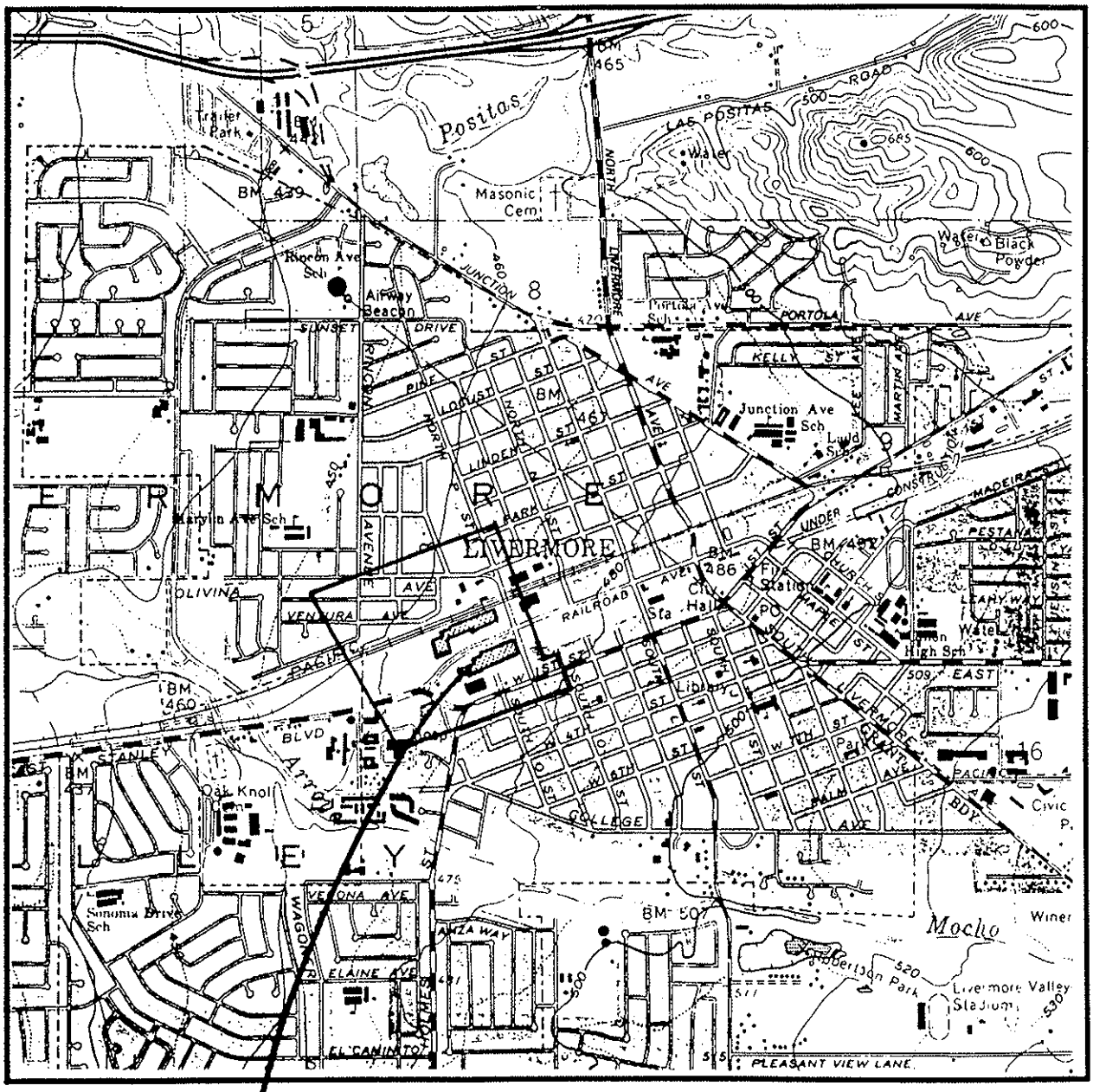
I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 17, 1996.

Loretta K. Barsamian
Executive Officer

FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

Attachments: Figures
Self-Monitoring Program

Figure 1 Site Map



Source: USGS Livermore Quadrangle, Alameda County, 1961, Photorevised 1980.

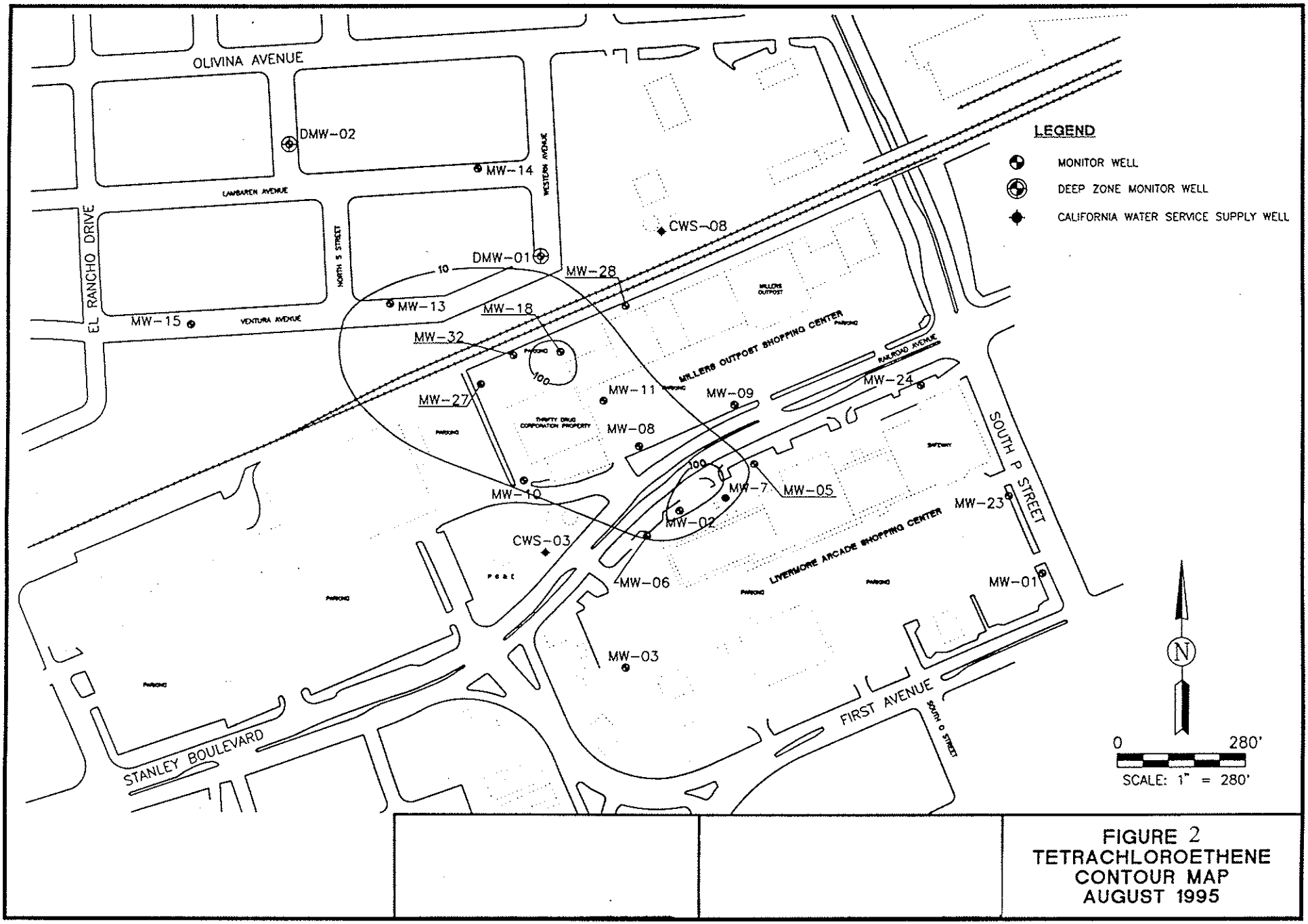


FIGURE 2
TETRACHLOROETHENE
CONTOUR MAP
AUGUST 1995

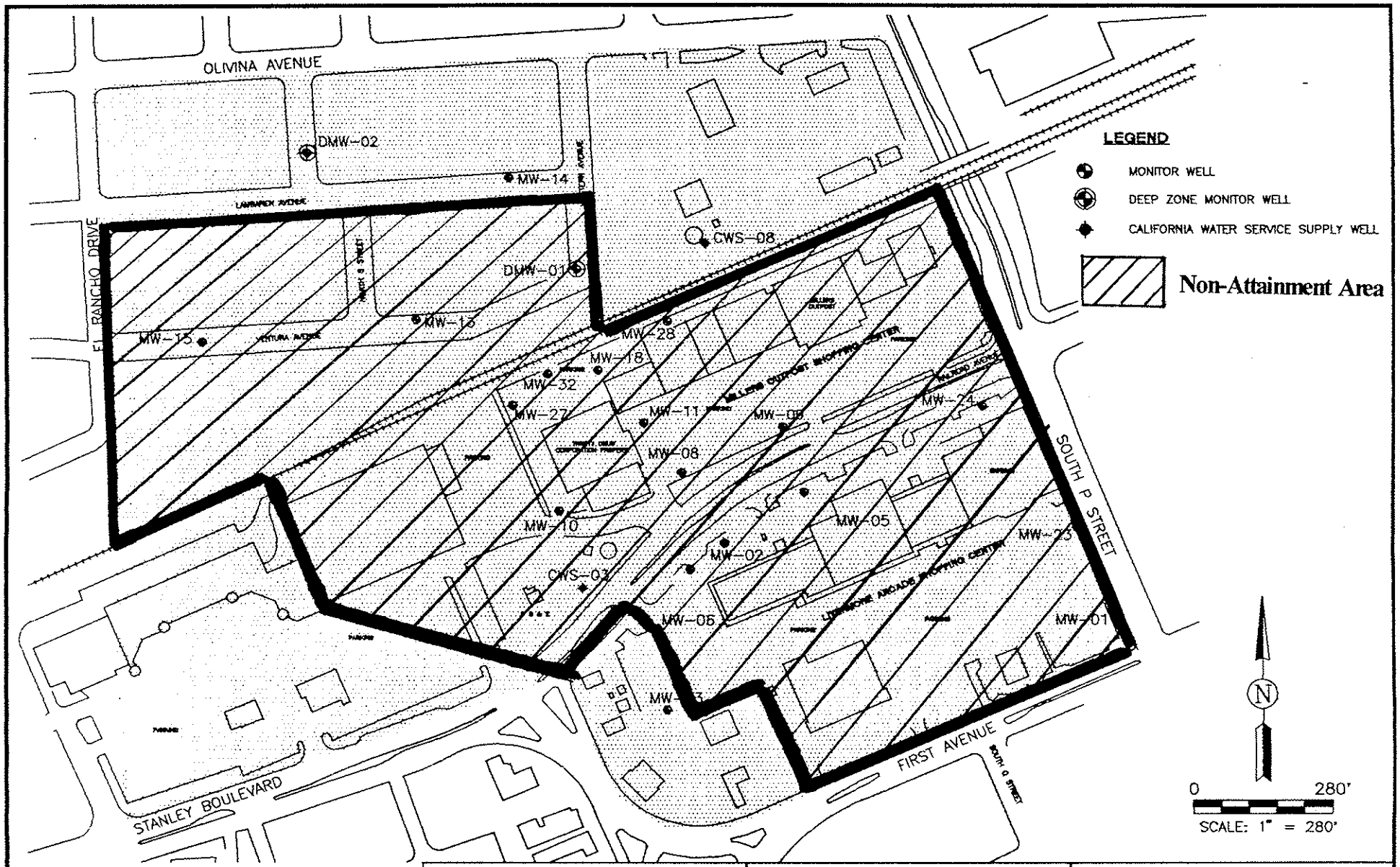


FIGURE 3
PROPOSED
NON-ATTAINMENT AREA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

GRUBB AND ELLIS REALTY INCOME TRUST, LIQUIDATING TRUST; STARK INVESTMENT COMPANY; CATELLUS DEVELOPMENT CORPORATION; STEVEN SONG, MICHAEL NEELY AND PERRY NEELY dba MIKE' S ONE HOUR CLEANERS; MILLER' S OUTPOST SHOPPING CENTER ASSOCIATES, IMA FINANCIAL CORPORATION; KATHLEEN McCORDUCK, JOHN McCORDUCK, PAMELA McCORDUCK AND SANDRA McCORDUCK MARONA; FORTNEY H. STARK, JR.; CHARLES HARTZ dba PAUL' S SPARKLE CLEANERS

for the properties

LIVERMORE ARCADE SHOPPING CENTER
located at FIRST AVENUE AND "P" STREET, AND
MILLER' S OUTPOST SHOPPING CENTER
located at RAILROAD AVENUE AND "P" STREET
LIVERMORE, ALAMEDA COUNTY

1.**Authority and Purpose**: The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 96- 052 (site cleanup requirements).

2.**Monitoring**: The dischargers shall measure groundwater elevations semi-annually in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following table:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
MW-6	SA	8010	MW-31S	SA	8010
MW-13	SA	8010	MW-31D	SA	8010
MW-14	SA	8010	DMW-01	SA	8010
MW-15	SA	8010	CWS-03*	SA	8010
MW-26S	SA	8010	CWS-08*	SA	8010

MW-26D	SA	8010			
MW-28D	SA	8010			

*Whenever wells are in operation, but no more than one sample per 6 months

Key: SA = Semi-Annually 8010 = EPA Method 8010 or equivalent

The dischargers shall sample any new monitoring wells semi-annually and analyze groundwater samples for the same constituents as shown in the above table. The dischargers may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Semi-annual Monitoring Reports**: The dischargers shall submit semi-annual monitoring reports to the Board no later than 30 days following the end of the monitoring period (e.g. report for first semi-annual monitoring period of the year would be due July 30). The first semi-annual monitoring report shall be due on July 30, 1996. The reports shall include:

   a. Transmittal Letter: The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the dischargers' principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

   b. Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the second semi-annual report each year.

   c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the second semi-annual report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).

   d. Groundwater Extraction: If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a

whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the second semi-annual report each year.

e. Status Report: The semi-annual report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.

5. **Violation Reports**: If the dischargers violate requirements in the Site Cleanup Requirements, then the dischargers shall notify the Board office by telephone as soon as practicable once the dischargers have knowledge of the violation. Board staff may, depending on violation severity, require the dischargers to submit a separate technical report on the violation within five working days of telephone notification.

6. **Other Reports**: The dischargers shall notify the Board in writing prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.

7. **Record Keeping**: The dischargers or their agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.

8. **SMP Revisions**: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the dischargers. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on April 17, 1996.

Loretta K. Barsamian
Executive Officer